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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
3404 E. Harmony Road
Mail Stop 35
FORT COLLINS, CO 80528

EXAMINER	
PESIN, BORIS M	
ART UNIT	PAPER NUMBER
2174	

NOTIFICATION DATE	DELIVERY MODE
03/18/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM
ipa.mail@hp.com
laura.m.clark@hp.com

Office Action Summary	Application No.	Applicant(s)	
	10/723,037	KLIER, JAN	
	Examiner	Art Unit	
	BORIS PESIN	2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 December 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14,17,18,20,21 and 23-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14,17,18,20,21 and 23-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

This communication is responsive to the appeal brief filed 12/14/2009.

Claims 1-14, 17, 18, 20, 21, and 23-26 are pending in this application. Claims 1, 11, and 18 are independent claims. This action is made Non-Final.

In view of the Appeal Brief filed on 12/14/2009, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/DENNIS-DOON CHOW/
Supervisory Patent Examiner, Art Unit 2174.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-5, 7-10, 11, 12, 13, 14, 17-18, 20-21, 24-25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maffezzoni et al. (6532535) in view of HD_Speed (SteelBytes.com) further in view of Erik Riedel, Active Disks-Remote Execution for NASD (Riedel).

Re claim 1, Maffezzoni et al. discloses an automated storage system comprising: a data access drive (hard drive or a removable drive, see column 3 lines 45-47 according to the numbering in the middle for example) operable to read and write computer-readable data on storage media (primary and secondary storage device, see abstract for example); a drive controller (controller see column 17 lines 1-2 for example) provided at the data access drive; computer-readable program code (intelligent Genesis backup protection system with SpareTire for example, see figures 6B and 14, column

41 lines 60-64) provided in computer-readable storage (see column 14 lines 37-41 for example), the computer-readable program code for generating drive information and user interface rendering data (see figure 6B for example); and a user interface module (see figure 6B, column 41 lines 60-64 using SpareTire for example) to output the drive information via a user interface in accordance with the user interface rendering data (see figure 6B for example).

Maffezzoni does not specifically providing computer-readable program code at the data access drive which provides drive information that comprises a status of the data access drive and an operating speed of the data access drive. HD_Speed teaches a GUI application that a user can install on a drive which will display drive information that comprises a status of the data access drive and an operating speed of the data access drive (See Page 1). It would have been obvious to one of ordinary skill at the time of the invention to modify Maffezzoni with the teachings of HD_Speed and include drive information that comprises a status of the data access drive and an operating speed of the data access drive with the motivation to provide the user with better benchmark of their computer's capabilities and to help the user diagnose potential problems with a disk drive.

Maffezzoni-HD_Speed does not specifically teach that the computer–readable program code is executable by the drive controller. Riedel teaches that computer–readable program code can be executable by the drive controller. (See Pages 1 and 2) It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Maffezzoni-HD_Speed with the teachings of Riedel and include the ability to

execute code right on the dive controller with the motivation to improve application performance (See Riedel Pages 1-5).

Re claim 2, Maffezzoni et al. discloses a system, wherein the computer-readable program code includes a render engine (SpareTire for example) to generate the user interface rendering data (see figure 5A and 6B for example).

Re claim 3, Maffezzoni et al. discloses a system, wherein the computer-readable program code includes a state machine (FootPrint for example) to retrieve the drive information.

Re claim 4, Maffezzoni et al. discloses a method as set forth in claim 1 above. Maffezzoni et al. does not explicitly disclose wherein the drive controller retrieves updated drive information if a data access drive changes state. It would have been an obvious matter to update displayed drive information, when the drive state changes, since such a modification would have involved the mere application of a known technique to a piece of prior art. Where a claimed improvement on a device or apparatus is no more than "the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement," the claim is unpatentable under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d 1509, 1518-19 (BPAI, 2007) (citing KSR v. Teleflex, 127 S.Ct. 1727, 1740, 82 USPQ2d 1385, 1396 (2007)). Accordingly Applicant claims a combination that only unites old elements with no change in the respective functions of those old elements, and the combination of those elements yields predictable results; absent evidence that the modifications necessary to effect the combination of elements is uniquely

challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d at 1518-19 (BPAI, 2007) (citing KSR, 127 S.Ct. at 1740, 82 USPQ2d at1396. Accordingly, since the applicant[s] have submitted no persuasive evidence that the combination of the above elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a) because it is no more than the predictable use of prior art elements according to their established functions resulting in the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement.

Re claim 5, Maffezzoni et al. discloses a system, further comprising a communication path (inherent, see figure 5A using FootPrint for example) established between the drive controller and the user interface module, the drive information and the user interface rendering data provided to the user interface module via the communication path (provided via FootPrint and SpareTire for example).

Re claim 7, Maffezzoni et al. discloses a method as set forth in claim 1 above. Maffezzoni et al. does not explicitly disclose a communication path established between the drive controller and a system controller and between the system controller and the user interface module, the drive information and the user interface rendering data provided to the user interface module via the communication path. It would have been an obvious matter to establish a communication path between the drive controller and a system controller and between the system controller and the user interface module, the drive information and the user interface rendering data provided to the user interface

module via the communication path, since such a modification would have involved the mere application of a known techniques such as establishing communication paths to a piece of prior art and also since establishing of communication paths would be necessary for the systems to function together. Where a claimed improvement on a device or apparatus is no more than "the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement," the claim is unpatentable under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d 1509, 1518-19 (BPAI, 2007) (citing KSR v. Teleflex, 127 S.Ct. 1727, 1740, 82 USPQ2d 1385, 1396 (2007)). Accordingly Applicant claims a combination that only unites old elements with no change in the respective functions of those old elements, and the combination of those elements yields predictable results; absent evidence that the modifications necessary to effect the combination of elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d at 1518-19 (BPAI, 2007) (citing KSR, 127 S.Ct. at 1740, 82 USPQ2d at1396. Accordingly, since the applicant[s] have submitted no persuasive evidence that the combination of the above elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a) because it is no more than the predictable use of prior art elements according to their established functions resulting in the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement.

Re claim 8, Maffezzoni et al. discloses a system, wherein the drive information and the user interface rendering data is displayed in a graphical user interface (see figure 6B for example).

Re claim 9, Maffezzoni et al. discloses a method as set forth in claim 1 above. Maffezzoni et al. does not explicitly disclose wherein the drive controller retrieves updated drive information based at least in part on input from the user interface module. It would have been an obvious matter to have wherein the drive controller retrieves updated drive information based at least in part on input from the user interface module, since such a modification would have involved the mere application of a known techniques such as updating information to a piece of prior art and also since Maffezzoni et al. teaches of user selection (see column 41 line 65 for example). Where a claimed improvement on a device or apparatus is no more than "the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement," the claim is unpatentable under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d 1509, 1518-19 (BPAI, 2007) (citing KSR v. Teleflex, 127 S.Ct. 1727, 1740, 82 USPQ2d 1385, 1396 (2007)). Accordingly Applicant claims a combination that only unites old elements with no change in the respective functions of those old elements, and the combination of those elements yields predictable results; absent evidence that the modifications necessary to effect the combination of elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d at 1518-19 (BPAI, 2007) (citing KSR, 127 S.Ct. at 1740, 82 USPQ2d at1396.

Accordingly, since the applicant[s] have submitted no persuasive evidence that the combination of the above elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a) because it is no more than the predictable use of prior art elements according to their established functions resulting in the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement.

Re claim 10, Maffezzoni et al. discloses a method as set forth in claim 1 above. Maffezzoni et al. does not explicitly disclose wherein the drive controller receives control instructions from the user interface module. It would have been an obvious matter to have wherein the drive controller receives control instructions from the user interface module, since such a interaction would have been obvious in order to relay the instruction for execution (see column 41 lines 60-65 for example). Where a claimed improvement on a device or apparatus is no more than "the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement," the claim is unpatentable under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d 1509, 1518-19 (BPAI, 2007) (citing KSR v. Teleflex, 127 S.Ct. 1727, 1740, 82 USPQ2d 1385, 1396 (2007)). Accordingly Applicant claims a combination that only unites old elements with no change in the respective functions of those old elements, and the combination of those elements yields predictable results; absent evidence that the modifications necessary to effect the combination of elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d at

1518-19 (BPAI, 2007) (citing KSR, 127 S.Ct. at 1740, 82 USPQ2d at1396. Accordingly, since the applicant[s] have submitted no persuasive evidence that the combination of the above elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a) because it is no more than the predictable use of prior art elements according to their established functions resulting in the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement.

Re claim 11, Maffezzoni et al. discloses a method comprising: receiving drive information and graphical user interface rendering data (see figure 6B for example);

outputting the drive information in a graphical user interface in accordance with the graphical user interface rendering data (see abstract and figure 6B for example).

Maffezzoni et al. does not explicitly disclose receiving an indication of activation of a button in the graphical user interface, wherein activation of the button is a request for the drive information, and wherein receiving the drive information and graphical user interface rendering data is in response to the indication of activation of the button. Maffezzoni et al. teaches of receiving an indication of activation of a link in the graphical user interface (user is provided with more information, see column 42 lines 1-3 for example), wherein activation of the link is a request for the drive information, and wherein receiving the drive information and graphical user interface rendering data is in response to the indication of activation of the link (see column 41 lines 64-column 42 line 3 for example). It would have been an obvious matter to have a button be provided

as a link, since such a modification would have been obvious. Where a claimed improvement on a device or apparatus is no more than "the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement," the claim is unpatentable under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d 1509, 1518-19 (BPAI, 2007) (citing KSR v. Teleflex, 127 S.Ct. 1727, 1740, 82 USPQ2d 1385, 1396 (2007)). Accordingly Applicant claims a combination that only unites old elements with no change in the respective functions of those old elements, and the combination of those elements yields predictable results; absent evidence that the modifications necessary to effect the combination of elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d at 1518-19 (BPAI, 2007) (citing KSR, 127 S.Ct. at 1740, 82 USPQ2d at1396. Accordingly, since the applicant[s] have submitted no persuasive evidence that the combination of the above elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a) because it is no more than the predictable use of prior art elements according to their established functions resulting in the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement.

Maffezzoni does not specifically providing drive information that comprises a status of the data access drive and an operating speed of the data access drive. HD_Speed teaches a GUI application that a user can install on a drive which will display drive information that comprises a status of the data access drive and an operating

speed of the data access drive (See Page 1). It would have been obvious to one of ordinary skill at the time of the invention to modify Maffezzoni with the teachings of HD_Speed and include drive information that comprises a status of the data access drive and an operating speed of the data access drive with the motivation to provide the user with better benchmark of their computer's capabilities and to help the user diagnose potential problems with a disk drive.

Maffezzoni and HD_Speed do not specifically teach that the generating is done by a drive controller at a data access drive of a storage system. Maffezzoni and HD_Speed both teach that the information is generated by a computer, but not specifically a drive controller at a data access drive of a storage system. Riedel teaches that drive controllers at a data access drive of a storage system are now able to process information and generate information without the need of a separate processor. (See Pages 1 and 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Maffezzoni and HD_Speed with the teachings of Riedel and allow for the active disk to generate the necessary data with the motivation to provide users with faster performance (See Riedel pages 1-5).

Re claim 12, Maffezzoni et al. substantially discloses a method as set forth in claim 11 above. Maffezzoni et al. does not explicitly disclose wherein receiving the drive information and the graphical user interface rendering data is via a system controller. It would have been an obvious matter to have wherein receiving the drive information and the graphical user interface rendering data is via a system controller, since such a interaction would have been obvious in order to relay the instruction for

execution (see column 41 lines 60-65 for example). Where a claimed improvement on a device or apparatus is no more than "the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement," the claim is unpatentable under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d 1509, 1518-19 (BPAI, 2007) (citing KSR v. Teleflex, 127 S.Ct. 1727, 1740, 82 USPQ2d 1385, 1396 (2007)). Accordingly Applicant claims a combination that only unites old elements with no change in the respective functions of those old elements, and the combination of those elements yields predictable results; absent evidence that the modifications necessary to effect the combination of elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d at 1518-19 (BPAI, 2007) (citing KSR, 127 S.Ct. at 1740, 82 USPQ2d at1396. Accordingly, since the applicant[s] have submitted no persuasive evidence that the combination of the above elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a) because it is no more than the predictable use of prior art elements according to their established functions resulting in the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement.

Re claim 13, Maffezzoni et al. discloses a method of claim 11 wherein receiving the graphical user interface rendering data comprises receiving the graphical user

interface rendering data from a render engine executed by the drive controller at the data access drive (See Riedel Pages 1 and 2).

Re claim 14, note that Maffezzoni et al. discloses a method, wherein outputting the drive information comprises displaying the drive information in the graphical user interface in accordance with the graphical user interface rendering data (see figure 6B and columns 41 lines 60-65 for example).

Re claim 17, Maffezzoni et al. substantially discloses a method as set forth in claim 11 above. Maffezzoni et al. does not explicitly disclose receiving a second indication of activation of the button in the graphical user interface; and

outputting updated drive information in the graphical user interface in response to receiving the second indication. Maffezzoni et al. teaches of receiving a second indication of activation of the link in the graphical user interface; and

outputting updated drive information in the graphical user interface in response to receiving the second indication (see column 41 lines 64-column 42 line 3, first link can be "Attempt Repair" and second link can be “Details of System Failure” for example). It would have been an obvious matter to have a button be provided as a link, since such a modification would have been obvious. Where a claimed improvement on a device or apparatus is no more than "the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement," the claim is unpatentable under 35 U.S.C. 103(a). Ex Parte Smith, 83

USPQ.2d 1509, 1518-19 (BPAI, 2007) (citing KSR v. Teleflex, 127 S.Ct. 1727, 1740, 82 USPQ2d 1385, 1396 (2007)). Accordingly Applicant claims a combination that only unites old elements with no change in the respective functions of those old elements, and the combination of those elements yields predictable results; absent evidence that the modifications necessary to effect the combination of elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d at 1518-19 (BPAI, 2007) (citing KSR, 127 S.Ct. at 1740, 82 USPQ2d at1396. Accordingly, since the applicant[s] have submitted no persuasive evidence that the combination of the above elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a) because it is no more than the predictable use of prior art elements according to their established functions resulting in the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement.

Re claim 18, Maffezzoni et al. discloses, In an automated storage system having a graphical user interface including a display and a graphical user interface selection device, a method of providing and selecting from the display comprising:

Receiving activation of a link in the graphical user interface, wherein activation of the link is a request for drive information of a data access device in the automated storage system (see figure 6B and columns 41 lines 64 to column 42 line 3 for example); and displaying the drive information in an application window in the graphical

user interface in accordance with the graphical user interface rendering data (see figure 6B).

Maffezzoni et al. does not explicitly disclose a button providing activation to the link; and sending an indication regarding the activation of the link to a drive controller at the data access drive (abstract and via bus to the controller for example); and

Responsive to the indication regarding the activation of the button, receiving drive information and graphical user interface rendering data from the drive controller.

It would have been an obvious matter to have a button be provided as a link, since such a modification would have been obvious. And it would also have been obvious to send indication regarding the activation of the link to a drive controller, in order to execute the selection. Where a claimed improvement on a device or apparatus is no more than "the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement," the claim is unpatentable under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d 1509, 1518-19 (BPAI, 2007) (citing KSR v. Teleflex, 127 S.Ct. 1727, 1740, 82 USPQ2d 1385, 1396 (2007)). Accordingly Applicant claims a combination that only unites old elements with no change in the respective functions of those old elements, and the combination of those elements yields predictable results; absent evidence that the modifications necessary to effect the combination of elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d at 1518-19 (BPAI, 2007) (citing KSR, 127 S.Ct. at 1740, 82 USPQ2d at1396. Accordingly, since the applicant[s] have submitted no

persuasive evidence that the combination of the above elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a) because it is no more than the predictable use of prior art elements according to their established functions resulting in the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement.

Maffezzoni does not specifically providing computer-readable program code at the data access drive which provides drive information that comprises a status of the data access drive and an operating speed of the data access drive. HD_Speed teaches a GUI application that a user can install on a drive which will display drive information that comprises a status of the data access drive and an operating speed of the data access drive (See Page 1). It would have been obvious to one of ordinary skill at the time of the invention to modify Maffezzoni with the teachings of HD_Speed and include drive information that comprises a status of the data access drive and an operating speed of the data access drive with the motivation to provide the user with better benchmark of their computer's capabilities and to help the user diagnose potential problems with a disk drive.

Re claim 20, Maffezzoni et al. substantially discloses a method, further comprising: Receiving updated drive information that represents a state change of the data access drive, and corresponding updated graphical user interface rendering data and

displaying the updated drive information in the application window in accordance with the updated graphical user interface rendering data (see figure 6B and columns 41 lines 64-column 42 line 3 for example).

Maffezzoni et al. does not explicitly disclose receiving a second activation of the button;

Sending a second indication regarding the second activation of the button to the drive controller; and receiving updated information from the drive controller. Maffezzoni et al. teaches of receiving a second indication of activation of the link (see column 41 lines 64-column 42 line 3, first link can be "Attempt Repair" and second link can be “Details of System Failure” for example). It would have been an obvious matter to have a button be provided as a link, since such a modification would have been obvious. And it would also have been obvious to receiving information on drive updates from a drive controller, in order to execute the selection. Where a claimed improvement on a device or apparatus is no more than "the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement," the claim is unpatentable under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d 1509, 1518-19 (BPAI, 2007) (citing KSR v. Teleflex, 127 S.Ct. 1727, 1740, 82 USPQ2d 1385, 1396 (2007)). Accordingly Applicant claims a combination that only unites old elements with no change in the respective functions of those old elements, and the combination of those elements yields predictable results; absent evidence that the modifications necessary to effect the combination of elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as

obvious under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d at 1518-19 (BPAI, 2007) (citing KSR, 127 S.Ct. at 1740, 82 USPQ2d at1396. Accordingly, since the applicant[s] have submitted no persuasive evidence that the combination of the above elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a) because it is no more than the predictable use of prior art elements according to their established functions resulting in the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement.

Re claim 21, Maffezzoni et al. discloses wherein the user interface rendering data enables drawing of a graphical image in the user interface see figure 6B for example).

Re claim 24, Maffezzoni et al. discloses a system wherein the user interface comprises a graphical user interface, wherein the user interface rendering data comprises a graphical user interface rendering data, and wherein the user interface module displays the drive information in a window of the graphical user interface in accordance with the graphical user interface data (see figure 6B for example).

Re claim 25, Maffezzoni et al. substantially discloses a method as set forth in claim 11 above. Maffezzoni et al. does not explicitly disclose sending output regarding activation of the button to the drive controller, wherein the drive information and graphical user interface rendering data is generated by the drive controller in response to the output. Maffezzoni et al. teaches of sending output regarding activation of the

link, wherein the drive information and graphical user interface rendering data is generated in response to the output (see figure 6B and column 41 lines 64-column 42 line 3 for example). It would have been an obvious matter to have a button be provided as a link, since such a modification would have been obvious. And it would also have been obvious to receiving and sending information on drive updates from a drive controller, in order to execute the selection and display updated information. Where a claimed improvement on a device or apparatus is no more than "the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement," the claim is unpatentable under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d 1509, 1518-19 (BPAI, 2007) (citing KSR v. Teleflex, 127 S.Ct. 1727, 1740, 82 USPQ2d 1385, 1396 (2007)). Accordingly Applicant claims a combination that only unites old elements with no change in the respective functions of those old elements, and the combination of those elements yields predictable results; absent evidence that the modifications necessary to effect the combination of elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d at 1518-19 (BPAI, 2007) (citing KSR, 127 S.Ct. at 1740, 82 USPQ2d at1396. Accordingly, since the applicant[s] have submitted no persuasive evidence that the combination of the above elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a) because it is no more than the predictable use of prior art elements according to their established

functions resulting in the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement.

Claim 26 is similar in scope to claim 13; therefore, it is rejected under similar rationale.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maffezzoni-HD_Speed-Riedel in view of Matsumoto et al. (20020124124).

Re claim 6, Maffezzoni-HD_Speed-Riedel discloses a method as set forth in claim 5 above. Maffezzoni-HD_Speed-Riedel does not explicitly disclose wherein the communication path is established separate from a data path with the drive controller. However, Matsumoto et al. teaches of wherein the communication path is established separate from a data path with the drive controller (plurality of ports, see abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Matsumoto et al. having separate communication path or plurality of ports with the method of Maffezzoni-HD_Speed-Riedel on the in order to provide ability for variety in interaction portals. Furthermore, it would have been an obvious matter to establish communication path that is separate from a data path with the drive controller, since such a modification would have involved the mere application of a known technique to a piece of prior art. Where a claimed improvement on a device or apparatus is no more than "the simple substitution of one known element for another

or the mere application of a known technique to a piece of prior art ready for improvement," the claim is unpatentable under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d 1509, 1518-19 (BPAI, 2007) (citing KSR v. Teleflex, 127 S.Ct. 1727, 1740, 82 USPQ2d 1385, 1396 (2007)). Accordingly Applicant claims a combination that only unites old elements with no change in the respective functions of those old elements, and the combination of those elements yields predictable results; absent evidence that the modifications necessary to effect the combination of elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d at 1518-19 (BPAI, 2007) (citing KSR, 127 S.Ct. at 1740, 82 USPQ2d at1396. Accordingly, since the applicant[s] have submitted no persuasive evidence that the combination of the above elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a) because it is no more than the predictable use of prior art elements according to their established functions resulting in the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maffezzoni-HD_Speed-Riedel in view of CD Speed 2000.

Re claim 22, Maffezzoni-HD_Speed-Riedel substantially discloses a system as set forth in claim 1 above. Maffezzoni-HD_Speed-Riedel does not explicitly disclose wherein the drive information further comprises an error rate of the data access drive.

CD Speed 2000 discloses the drive information further comprises an error rate of the data access drive (See Page 1 which states that errors can be measure with some recorders). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Maffezzoni-HD_Speed-Riedel with the teachings of CD Speed 2000 and include the error rate of the data access drive with the motivation to provide the user with better tools to diagnose a potential data drive problem.

Response to Arguments

Applicant's argument with respect to independent claims 1-10, 13 and 26 are unpersuasive. Applicant contends that "[t]he fact that the Genesis software of Maffezzoni and the disk software of HD_Speed are both executed on the host computer would have led a person of ordinary skill in the art away from the claimed invention." The Examiner respectfully disagrees. A computer engineer who wanted to improve performance of Maffezzoni and the disk software of HD_Speed would look at all aspects of commuting including Active Disk technology as taught by Riedel. To conclude otherwise would be to disregard years of advances in technology which have illustrated the desire to combine multiple hardware components into one. For example, sound cards, video cards, network interface cards, and modem adapters were all originally separate computer components that connected to the motherboard of the PC. However, as computers became more advanced and smaller, hardware manufactures

were able to incorporate all of the aforementioned devices into one motherboard. Thus, a computer engineer who wanted to build a faster interface would recognize that placing a processor to execute code closer to the hard drive, as taught by Ridel, would be beneficial for some tasks especially those that directly involve the hard drive (as taught by Maffezzoni and HD_Speed).

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BORIS PESIN whose telephone number is (571)272-4070. The examiner can normally be reached on Monday-Friday except every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dennis Chow can be reached on (571)272-7767. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Boris Pesin/
Primary Examiner, Art Unit 2174

/DENNIS-DOON CHOW/

Supervisory Patent Examiner, Art Unit 2174